Aviation Weather

This webpage provides information on and links to weather regulatory requirements, weather policy and guidance, weather training, and new weather products.

New Product(s)

The National Weather Service (NWS) is beta testing the new **Graphical Forecast for Aviation (GFA)** as a new forecast tool that will replace the Area Forecast (FA). GFAs are intended to provide the necessary aviation weather information to give users a complete picture of the weather that may impact flight in the continental United States (CONUS). Built with modern geospatial information tools, users can zoom and pan to focus on areas of greatest interest. **For more information on these new products including a tutorial please click here.**

Current Advisory Circulars:

- **AC 00-6A**, - Aviation Weather For Pilots and Flight Operations Personnel

  This Advisory Circular provides basic weather theory and information for use in training and certification by the aviation community. This document is used in conjunction with Advisory Circular 00-45 below.

- **AC 00-24C**, Thunderstorms

  This advisory circular describes the hazards of thunderstorms to aviation and offers guidance to help prevent accidents caused by thunderstorms. Thunderstorm types and terminology are discussed as well as hazards to aviation to include tornadoes, convective turbulence, icing, hail, ground and airborne weather radar.

- **AC 00-30C**, Atmospheric Turbulence Avoidance

  This advisory circular describes various types of clear air turbulence (CAT), some of the weather patterns associated with CAT, and turbulence reporting systems and networks. Also included is information on turbulence forecasts and products.

- **AC 00-45G**, Aviation Weather Services

  This advisory circular details the interpretation and application of advisories, coded weather reports, forecasts, observed and prognostic weather charts, and radar and satellite imagery. It supplements its companion manual Aviation Weather For Pilots and Flight Operations Personnel, Advisory Circular 00-6.

- **AC 00-54**, Pilot Wind Shear Guide

This advisory circular communicates important wind shear information provided to pilots during wind shear ground training. Specifically, this guide provides key findings regarding wind shear weather (microburst), effects of wind shear on airplanes, recognition of wind shear from the cockpit and avoidance, precautions to take when wind shear is suspected, and operating techniques related to wind shear and recovery techniques.

- **AC 00-57**, Hazardous Mountain Winds and Their Visual Indicators

  This advisory circular assists pilots involved in aviation operations to diagnose the potential for severe wind events in the vicinity of mountainous areas. It provides information on preflight planning techniques and on in-flight evaluation strategies for avoiding destructive turbulence and loss of aircraft control.

- **AC 00-63A**, Use of Cockpit Displays of Digital Weather and Aeronautical Information

  This advisory circular provides guidance to flight crew members and other airmen on the use of data link to access Flight Information Services (FIS). This AC addresses both the Federal Aviation Administration (FAA) FIS Broadcast (FIS-B) provided through the Automatic Dependent Surveillance – Broadcast (ADS-B) Universal Access Transceiver (UAT) network and non-FAA FIS systems provided through commercial data link services

- **AC 90-23G**, Aircraft Wake Turbulence

  This advisory circular presents basic information on wake vortex behavior, alerts pilots to the hazards of aircraft wake turbulence, and recommends operational procedures to avoid wake turbulence encounters.

- **AC 91-13C**, Cold Weather Operation of Aircraft

  This advisory circular provides background and guidelines relating to operation of aircraft in the colder climates where wide temperature changes may occur.

- **AC 91-74B**, Pilot Guide: Flight in Icing Conditions

  This advisory circular provides pilots with a convenient reference guide on the principal factors related to flight in icing conditions and the location of additional information in related publications.

- **AC 120-112**, Use of Liquid Water Equivalent System to Determine Holdover Times or Check Times for Anti-Icing Fluids

This advisory circular provides guidance for the Federal Aviation Administration's (FAA) standard for a Liquid Water Equivalent System (LWES). This AC applies to anyone proposing to design, procure, construct, install, activate, or maintain an LWES.